devoted to it in recent years, and very divergent views are entertained as to the significance of the various features of the curve without conclusive evidence having been adduced for them. The author gives an explanation arrived at from experiments on the isolated tortoise heart, and especially from cases of systolic alternation in auricles and ventricle.—Paul A. **Methuen** and John **Hewitt**: A contribution to our knowledge of the anatomy of the chameleon. After making a comparative examination of the lungs, sternum, and skull in various members of the family the authors conclude that the most generalised and probably most primitive forms are the genera Brookesia and Rhamphoteon (the latter not actually examined by the authors), whilst the viviparous small chameleons of the pumilus group, so characteristic of South Africa, are the most primitive in the genus Chameleons: for these latter species, pumilus and allies, the authors revive the old generic name Lophosaura of Gray. It appears probable that the family, as we know it to-day, has spread from a centre of origin situated in that portion of the Ethiopian region of which there now remains two separated components, Madagascar and the Cape province of Sclater. There is no evidence in favour of a northern origin for this family.—R. **Marloth**: Note on the Pollination of *Encephalartos altensteinii* (Kaffir bread tree). The insect on which the transport of the pollen from the male cone to the female cone of *Encephalartos altensteinii* and *E. villosus* depends is not a Phlœophagus, as stated in a paper recently published in the Transactions of the Royal Society, S.A., but *Antliarrhinus zamiae*, that means the same insect which lives in the seeds of these plants until the cones disintegrate and enable the mature insect to escape from them. The female insect pollinates the ovules while moving about between them for the purpose of depositing its eggs. Although according to Dr. Rattray's observations, some or most, or even sometimes all, the seeds of a cone are thus destroyed by the grubs of the insect, the visits of the insect are nevertheless essential to the plant, for without them no seeds would be formed at all. The case is quite parallel to that of the Yucca moth (Pronuba), which, while depositing its eggs into the pistil of the Yucca, pollinates the flower.

GÖTTINGEN.

Royal Society of Sciences.—The *Nachrichten* (physico-mathematical section), part 3 for 1913, contains the following memoirs communicated to the society:—

July 20, 1912.—A. **Ansel**: Seismic records at Göttingen during 1911 (with seven figures and a table, illustrating the graphical solution of spherical triangles).

March 8, 1913.—L. **Geiger**: Seismic records at Göttingen during 1909.

May 24.—G. **Pólya**: Approximation by means of polynomials, all the roots of which fall within an angular sector.—R. **Fueter**: A property of the *Klassenkörper* of complex multiplication.—G. **Tammann**: The melting point.—O. **Müggе**: Filiform crystals of green vitriol and silver.—L. **Godeaux**: Cyclic involutions of order $2a$ and genus 1 on a surface of genus 1.

July 5.—R. W. **Hoffmann**: The embryonic development of the Strepsiptera (preliminary communication, with figures).

July 19.—D. **Hilbert**: Remarks on the foundation of an elementary theory of radiation.—O. **Toeplitz**: A problem, connected with Dirichlet-series, in the theory of series of powers of an infinite number of variables.

The business communications (part 1 for 1913) include reports by H. **Wagner** on the Samoa Observatory for 1912–13, and by F. **Klein** on the progress of the publication of Gauss's works.

BOOKS RECEIVED.

Studies in Cancer and Allied Subjects. Vol. i., The Study of Experimental Cancer. A Review. By Dr. W. H. Woglom. Pp. xi+288+plates. Vol. iii., From the Department of Zoology, Surgery, Clinical Pathology, and Biological Chemistry. Pp. ix+308. (New York: Columbia University Press.) Each 5 dollars net.

A Geography of the British Empire. By W. L. Bunting and H. L. Collen. Pp. iv+159. (Cambridge University Press.) 3*s*. 6*d*.

Early Wars of Wessex. By A. F. Major. Edited by the late C. W. Whistler. Pp. xvi+238. (Cambridge University Press.) 10*s*. 6*d*. net.

Weeds: Simple Lessons for Children. By R. L. Praeger. Pp. x+108+iii plates. (Cambridge University Press.) 1*s*. 6*d*. net.

The Freezing-Point Lowering, Conductivity, and Viscosity of Solutions of certain Electrolytes in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, and Glycerol, and in Mixtures of these Solvents with one another. By H. C. Jones and collaborators. Pp. vii+214. (Washington, D.C.: Carnegie Institution.) 2 dollars.

The Wonders of Wireless Telegraphy. By Prof. J. A. Fleming. Pp. xi+279. (London: S.P.C.K.) 3*s*. 6*d*. net.

A Text-book of General Embryology. By Prof. W. E. Kellicott. Pp. v+376. (New York: H. Holt and Co.) 2.50 dollars.

Industrial and Commercial Geography. By Prof. J. R. Smith. Pp. xi+914. (New York: H. Holt and Co.) 3.50 dollars.

Die Atomionen chemischer Elemente und ihre Kanalstrahlen-Spektra. By Dr. J. Stark. Pp. 43. (Berlin: J. Springer.) 1.60 marks.

Zur Krise der Lichtäther-Hypothese. By Prof. P. Ehrenfest. Pp. 23. (Berlin: J. Springer.) 60 pfennigs.

Die Europaeischen Schlangen. By Dr. F. Steinheil. Drittes Heft. Plates 11 to 15. (Jena: G. Fischer.) 3 marks.

Mendelism and the Problem of Mental Defect. I., A Criticism of Recent American Work. By Dr. D. Heron. Pp. 62. (London: Dulau and Co., Ltd.) 2*s*. net.

The Shetland Pony. By C. and A. Douglas. With an Appendix on the Making of the Shetland Pony, by Prof. J. Cossar Ewart. Pp. xi+176+plates. (Edinburgh and London: W. Blackwood and Sons.) 10*s*. 6*d*. net.

The Sugars and their Simple Derivatives. By Dr. J. E. Mackenzie. Pp. xvi+242. (London: Gurney and Jackson.) 7*s*. 6*d*. net.

The Absorption Spectra of Solutions as affected by Temperature and by Dilution. By H. C. Jones and J. S. Guy. Pp. vii+93+22 plates. (Washington: Carnegie Institution.) 2 dollars.

Reversion in Guinea Pigs and its Explanation. By W. E. Castle. Experimental Studies of the Inheritance of Color in Mice. By C. C. Little. Pp. 102+5 plates. (Washington: Carnegie Institution.)

A First Book of Nature Study. By E. Stenhouse. Pp. iv+148. (London: Macmillan and Co., Ltd.) 1*s*. 6*d*.

Die Grundlagen der Naturphilosophie. By Dr. H. Dingler. Pp. x+262. (Leipzig: Unesma G.m.b.H.) 6 marks.

Fortschritte der Naturwissenschaftlichen Forschung. Edited by Prof. E. Abderhalden. Neunter Band. Pp. 280. (Berlin and Vienna: Urban and Schwarzenberg.) 15 marks.

Objektive Psychologie oder Psychoreflexologie die Lehre von den Assoziationsreflexen. By Prof. W.

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von Bechterew. Pp. viii+468. (Leipzig and Berlin: B. G. Teubner.) 16 marks.

Physikalisches uber Raum und Zeit. By E. Cohn. Zweite Auflage. Pp. 24. (Leipzig and Berlin: B. G. Teubner.) 80 pfennigs.

Das Relativitätsprinzip. By H. A. Lorentz, A. Einstein, and H. Minkowski. Pp. 89. (Leipzig and Berlin: B. G. Teubner.) 3 marks.

The Silicates in Chemistry and Commerce. By Drs. W. and D. Asch. Translated, with Critical Notes and some Additions, by A. B. Searle. Pp. xx+456. (London: Constable and Co., Ltd.) 21s. net.

The Respective Standpoints of Psychology and Logic. By M. Castro. Pp. 77. (Chicago: University of Chicago Press; Cambridge University Press.) 2s. net.

Canada. Department of Mines. Mines Branch. Economic Minerals and Mining Industries of Canada. By the Staff of the Mines Branch. Pp. 77+xix plates. (Ottawa: Government Printing Bureau.)

Problems of Genetics. By W. Bateson. Pp. ix+258. (Oxford University Press.) 17s. net.

University College, Reading. Studies in History and Archæology: Black Glaze Pottery from Rhitsona in Boeotia. By Prof. P. N. Ure. Pp. 63+xix plates. (Oxford University Press.) 7s. 6d. net.

Insect Biographies with Pen and Camera. By J. J. Ward. Pp. xii+206+plates. (London: Jarrold and Sons.) 6s. net.

Die Elemente der siebenten Gruppe des periodischen Systems. Aus Abegg's Handbuch der anorganischen Chemie. Vierter Band. Zweite Abteilung. Edited by Dr. F. Auerbach. Pp. x+904. (Leipzig: S. Hirzel.) 26 marks.

Zellen- und Gewebelehre Morphologie und Entwicklungsgeschichte. I., Botanischer Teil. By E. Strasburger and W. Benecke. Pp. vi+338. II., Zoologischer Teil. By R. Hertwig, H. Poll, O. Hertwig, and others. Pp. vi+538. (Leipzig and Berlin: B. G. Teubner.) 10 marks and 16 marks respectively.

Biochemie der Pflanzen. By Dr. F. Czapek. Zweite Auflage. Erster Band. Pp. xix+828. Jena: G. Fischer.) 24 marks.

Flies in Relation to Disease. Non-Bloodsucking Flies. By Dr. G. S. Graham-Smith. Pp. xiv+292+xxiv plates. (Cambridge University Press.) 10s. 6d. net.

The English Year. By W. B. Thomas and A. K. Collet. Pp. viii+408+plates. (London and Edinburgh: T. C. and E. C. Jack.) 10s. 6d. net.

Industrial Organic Analysis. By P. S. Arup. Pp. xii+340. (London: J. and A. Churchill.) 7s. 6d. net.

Sleeping Sickness in the Island of Principe. By Surgeon-Captain B. F. Bruto da Costa. Translated by Lieut.-Col. J. A. Wyllie. Pp. viii+90. (London: Balliere, Tindall and Cox.) 2s. 6d. net.

Handworterbuch der Naturwissenschaften. Edited by E. Korschelt and others. Lief. 60 and 61. (Jena: G. Fischer.) Each 2.50 marks.

The Meaning of Evolution. By Prof. S. C. Schmucker. Pp. 298. (London: Macmillan and Co., Ltd.) 6s. 6d. net.

The Montessori Principles and Practice. By Prof. E. P. Culverwell. Pp. xvii+309. (London: G. Bell and Sons, Ltd.) 3s. 6d. net.

The London University Guide, 1914. Pp. xxii+227. (London: University Correspondence College.)

DIARY OF SOCIETIES.

THURSDAY, OCTOBER 23.

INSTITUTION OF CIVIL ENGINEERS, at 9.—Progress of Marine Construction: Alex. Gracie.

FRIDAY, OCTOBER 24.

INSTITUTION OF MECHANICAL ENGINEERS, at 8.—Modern Flour Milling Machinery: R. B. Creak.

PHYSICAL SOCIETY, at 5.—The Ice Calorimeter: E. Griffiths.—An Electrostatic Oscillograph: H. Ho and S. Kotô.

JUNIOR INSTITUTION OF ENGINEERS, at 8.—Mechanical Advertising and Similar Appliances: H. W. Sewell.

TUESDAY, OCTOBER 28.

ZOOLOGICAL SOCIETY, at 8.—Contributions to the Anatomy and Systematic Arrangement of the Cestoidea. XI. A New Genus of Tapeworms from Œdicnemus: F. E. Beddard.—The Fossil Crinoids referred to Hypocrinus, Beyrich: F. A. Bather.—*Batrachiderpeton lineatum*, Hancock and Atthey, a Coal Measure Stegocephalian: D. M. S. Watson.—The Brain and Brain-case of a Fossil Ungulate of the Genus Anoplotherium: R. W. Palmer.

WEDNESDAY, OCTOBER 29.

BRITISH ASTRONOMICAL ASSOCIATION, at 5.—Presidential Address.

FRIDAY, OCTOBER 31.

JUNIOR INSTITUTION OF ENGINEERS, at 8.—The Difference between a Drain and a Sewer: R. Kelsey Jones.

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